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YATI E. DURANT

Spontaneous Composition for Screen: linear and non-linear improvisation for instruments and electronics

ABSTRACT

This research examines non-traditional music performance and composition practices utilising experimental electronic and acoustic performance strategies for scoring films. It looks at innovation within screen sound by examining how technological practices, both innovative and more established, are facilitating and shaping the creative processes of screen composition and sound design. At the forefront of this research is taking into account new forms of electronic and musician interface to the improvisation process when composing in real time, which includes controllers that manipulate sound in real time, musical gesture and notation for live performance, and new compositional structure as pertains to dramatic flow when working to picture.

Introduction

There has been much history with combining musical improvisation to film, however effects of improvisation also need to be looked at from a compositional perspective. Preliminary research suggests that dramatic emphasis in music for screen is more complex than is commonly understood, with Lipscomb and Kendall's Film Music Paradigm (*Perceptual judgment of the relationship between musical and visual components in film. Psychomusicology*, 13 (1994 Spring/Fall: 91) presenting a viewpoint that congruency relationships considerably alter our perception of what music 'fits' to film. At the same time, musical improvisation, with its dynamic reactivity and spontaneity, provides a potential to experiment more deeply within these musical borders. And, since composing is often a more (but not always) specifically structured working process than improvisation, it must be looked at that certain forms of improvisation can be considered analogous to composition methods.

Utilising 5 main differentiations of improvisational approach to music to film, this work aims to consider the effects of this reactivity, dramatic control and spontaneity. While accessing impact and potential these new processes will have on

traditional views associated with film scoring, composition and performance. Will it be working to further expand modern scoring practices to increase its effectiveness, or will it simply dilute otherwise clear and congruent compositional processes?

In this article I will examine several roles that pertain to the complex process of perceiving and making music, specifically those of improvised electro/acoustic music to film. This is not an attempt to be completely thorough within such a broad and general multi-disciplinary subject¹, rather this article is structured to bring four key elements to the discussion in context with the roles of the improviser, the composer and music in film. These elements are supported by practical examples that stem from my own current practice as an improviser and composer for film. I will refer to the research which hypothesises that at the core of the compositional process may indeed be improvisation and that a musician will often play the role of improviser, whether in the studio, on the stage or in private practice; as well as of composer, by writing out music and arrangements or complete compositions for other musicians to play. Many musicians have the skills and impetus to do all of these things even if it may complicate the creative process to an extent. And, so it may be as an ‘experimental’² musician for screen that there may be the greatest concentration of roles to observe.

The first question is what are we trying to achieve with our music when there is such a strict medium of fixed film to accompany, often with rather restrictive elements predetermining aesthetic meaning before any note can sound? I suggest that we look at expanding our awareness of what a film calls for by considering how we may use congruency, or more dissonant forms of compositional specificity to enhance the film/music experience and uncover subtle meanings. For improvisation, however, there are other factors that we must look at as well, including how reactivity plays a role. To support this, five methods are introduced which approach improvisation for the screen, as well as a short analysis of recordings made between 13 March and 13 May 2015 of an electroacoustic ensemble made up of myself and (up to) two other collaborators utilising these methods. However, it is important first to outline specific traits and roles of the improviser, the composer, aesthetic concerns and influence of technology on the process in order to contextualise the overall output.

The Improviser

The creative and spontaneous process of improvisation has been increasingly researched. Improvising musicians may not have any precise preconceived idea or model for the music they are about to create, but they perform endless varieties of improvisations once they begin.⁴ This complexity and variation is often easier to develop when the improviser is not playing alone, but rather as part of an ensemble where musical ideas are developed between them. In the article, *Improvisation as a Creative Process Within Contemporary Music* (2012), MacDonald, Wilson and Meille describe improvisation to 'be seen as essentially social' due to the nature of improvisation primarily taking place among groups of individuals, aware of the fact that the music is being made spontaneously. This social creative process is a unique characteristic of improvisation, in comparison with the fixed compositional performance - one that also applies to the performance of improvisations to screen. The improvisers, in effect, share mutual responsibility in the spontaneous creation of the film score. They are the composers in the moment.

When improvising live to a film, the improvisers may simultaneously create a music that underlines the narrative of the film as well as interpret a response to its immediate emotional experience. The improvisers, as creative and spontaneous musicians, can respond musically to the overall narrative in unpredictable ways that may have a special connection to the understanding of a film's complexity; improvising musicians can 'feel' and 'remember' more impulsively what has happened in, say, a short segment of film, than a composer that perhaps composed the same segment over a few days or weeks. The musical comment at the end of that segment may be fresher and more truthful in a way, because there is a spontaneous reaction to it as it's being played.

The improvisers are also aware of the fact that what they do could be subject to problems associated with the meaning behind the spontaneous creation and production of sound, such as when 'mistakes' are made or narrative passages misinterpreted within a film. Any musician who performs to film, whether improvised or not, must be aware that the film stops for no one. Any problems that occur in the performance must be dealt with during the performance and by negotiating the music in a congenial way that does not incur damage to the overall film score or its meaning. These musicians rehearse with various strategies, such as visual cues in the score to skip to, cue points they can repeat or even silent moments in fermatas, or pauses (Fig. 1), etc. so as to be best prepared for such eventualities in performance. Ultimately, it

is understood by each musician that even despite a fixed score (if there is one) performing to a film is a sort of ‘adventure’ in which no two performances are absolutely alike. And, the energy of that anticipation is palpable enough to create a unique performance atmosphere which is quite different from a fixed composition playback score.

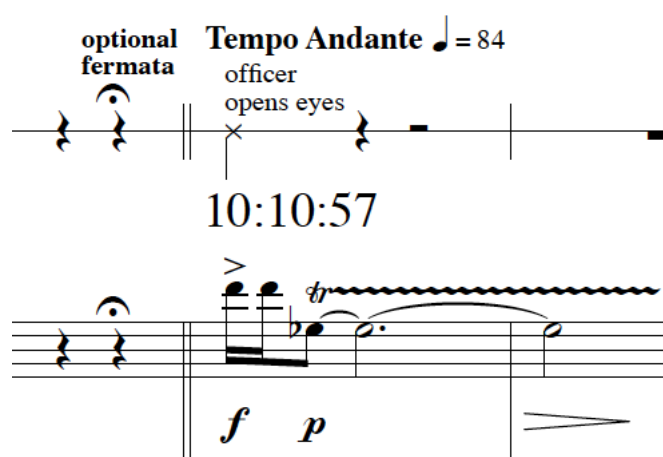


Fig. 1 A score fragment from *The Battleship Potemkin* (2005) by Yati Durant, showing live film score specific notation such as the ‘optional fermata’.

Another problem created through the distinct process of improvisation is the managing of an apparent lack of clear compositional ‘Leitwerk’ or control. Improvisation can be seemingly random and spontaneous in its creation, in contrast to a fixed composition’s strict means to emphasise sophisticated synchronised musical statements that precisely respond to cues. This ‘randomness’ may occur during an improvisation to screen because although the film itself may provide some sort of narrative structure, it will still need to be interpreted musically, and this process is an abstract one. If the improvisers are not able appreciate the exact meaning of the film narrative they are performing to without considerable rehearsal or preparation of score-like materials, etc., then this may mean that by definition they are no longer ‘properly’ improvising.

The Composer

In *The improvisation of Musical Dialogue* (2003), author Bruce Ellis Benson makes a strong case that the composition process is congruent with improvisation. Benson argues, ‘The process by which a work comes into existence is best described as

improvisatory at its very core, not merely the act of composing but also the acts of performing and listening' (2003: 2). This allows us to consider the origins of spontaneity in the musical process. It may also help explain that different musical traditions come from both the process of improvisation and composition, since improvisatory contributions always carry with them individual style.⁵ Furthermore, it allows us to think of music making as an abstract process, one that shares similar aesthetic connotations regardless of how it is made, but does not necessarily have similar outputs.

Béla Bartók is famously known to have believed that teaching composition was, 'in effect impossible' as what the composer actually does while composing is still largely a mysterious process. We can, however, identify a few elements that seem to be specific to those of a composer. One of them is that a composer is often aware of the necessity for a composition to have a physical and premeditated structure. A composer accepts that a composition must *know* how long it is and how it is generally to be played by fixing it in notation on a written or recorded score. In an improvisation, the structure is usually much less apparent. Because of this, a notated composition appears to reflect a composer's intent that a work has *definition* and *permanence*. Benson recognises, in his analysis of Nelson Goodman (1968) that 'we tend to see both the score and the performance primarily as vehicles for preserving what the composer has created.' If we consider notation and (performance) recording as putting the process of composition under less certain terms, it is easier to consider it a type of improvisation – one in which spontaneous experimentation, and not only 'sitting at a writing desk', can reflect a composer's intentions.

Traditional film scores are often created using compositionally analogous processes that utilise themes, as well as developmental and musical description to accompany specific scenes in a fixed visual media that do not change from screening to screening. This music may be recognisable or even memorable, but due to certain limitations it may also be impossible to consider the film score itself as a fully autonomous compositional creation. The recorded music of a film score is designed to suit the sonic environment of the film, and it must be placed in balance with other sounds in the soundtrack. It has to fit precisely within the constraints of the cues or scene in which it is placed. Additionally, in order to create a film score the composer nowadays usually will sit in front of a computer workstation to lay these musical ideas over a scene, rather than work independently from the picture. Such a

composition must be developed in tandem with the film scene. This *workflow* is what most clearly differentiates composition from improvisation.

The role of music in film

One important role is that music helps with the film's communication of its emotional narrative to the viewer. Music provides the film with an enhanced sense of completion and can improve continuity or suggest hidden (or not easily otherwise perceived) meanings in a film, often in ways that are not possible to achieve with dialogue or cinematography. In *Film Music: A Neglected Art*, Prendergast refers to Karl Kraus stating, 'The origin of motion-picture music is inseparably connected with the decay of the spoken language.' (1992: 4). This statement is important to recognise as an indicator for music, as it suggests that music can provide unique and complex pathways for the film to express meaning when dialogue is unable to do so (or it is the director's intention).⁶

However, there is a great deal of misunderstanding about what music is doing in a film in the first place. In fact, many people don't agree on what is considered good film music, or even on fundamentally what is film music at all. For some, the existence of film music may be nothing other than an association one has with a piece of music placed in (or composed for) a film.

How can we tell if a particular music to film is 'wrong'? Firstly, we need to recognise what film music is, even though that may not be a simple task. Jeff Rona, in his book on the film composer's craft, *The Reel World* writes, 'Is there, in fact, such a thing as "film music," unique from other musical styles and forms? Undeniably yes, though defining it is very difficult.' (2009: 2) However, in the preface he recognises and elaborates on what it can do by stating, 'A really well-written film score leads the audience gently through the emotions and actions on the screen without letting them know just how much they are being helped along' (2009: xiii). Most of what is suggested here is how the music *functions* within the film, but not precisely what the music is made of. But this also suggests that music coexists with the film by interacting with it, otherwise its potency would be impossible to judge.

One of simplest ways of gauging the effectiveness of music in a film is to place different contrasting pieces of music over the film to observe how they influence the film narrative and work with visible cues and atmosphere. This exploratory process (much akin to improvisation) usually creates interesting results

and often helps decide the kind of music that best suits the film. It may be that one musical piece helps clarify the narrative or emotional complexity, but fails to match the visual edit tempo. Another musical piece may match several visual cues, but provide too much stylistic contrast. Almost any piece of music will provide at least a few moments that work with the film.

This is interesting because it shows that in film music there may not be any one ideal solution for any scene or film. However, if music is to create a bridge that delivers the narrative from screen to the viewer, then a music score provides that most effectively if it is specially composed or performed for that film (or scene). A specialised score is unique in that it demonstrates the use of aesthetic musical choices based on narrative understanding, intuition (especially when improvising) and reactivity.⁷

Congruency

‘Music can operate on a plane completely contrary to the visuals. There is still a wide field for experiment on this.’ (*William Alwyn on the Aesthetics of Scoring Pictures*, in *Music for the Movies*, Thomas 1997: 36.)

One fundamental aspect to consider when analysing music in a film is its perceptual relation to, or ‘distance’ between, the film and the music.⁸ The complex cognitive relationships that exist between the visual and auditory senses are phenomena that have been explored in other research and I do not wish to go into depth here. There undeniably exists, however, a cognitive reaction created when music accompanies a film scene. This reaction will subjectively recognise the music as being expected or unexpected to the viewer’s narrative understanding, conditioning, etc. It also has the potential to provide emphasis for the music, one that can create or modify meaning in a film score. Lipscomb and Kendall’s film music paradigm⁹ (Fig. 2) illustrates the process that represents the creation of this implicit judgement, and while it does not explain the function of how these contrasts in music affect a film, it does suggest that changes do occur in our perception of a scene when the music is subjectively recognised by its congruency.

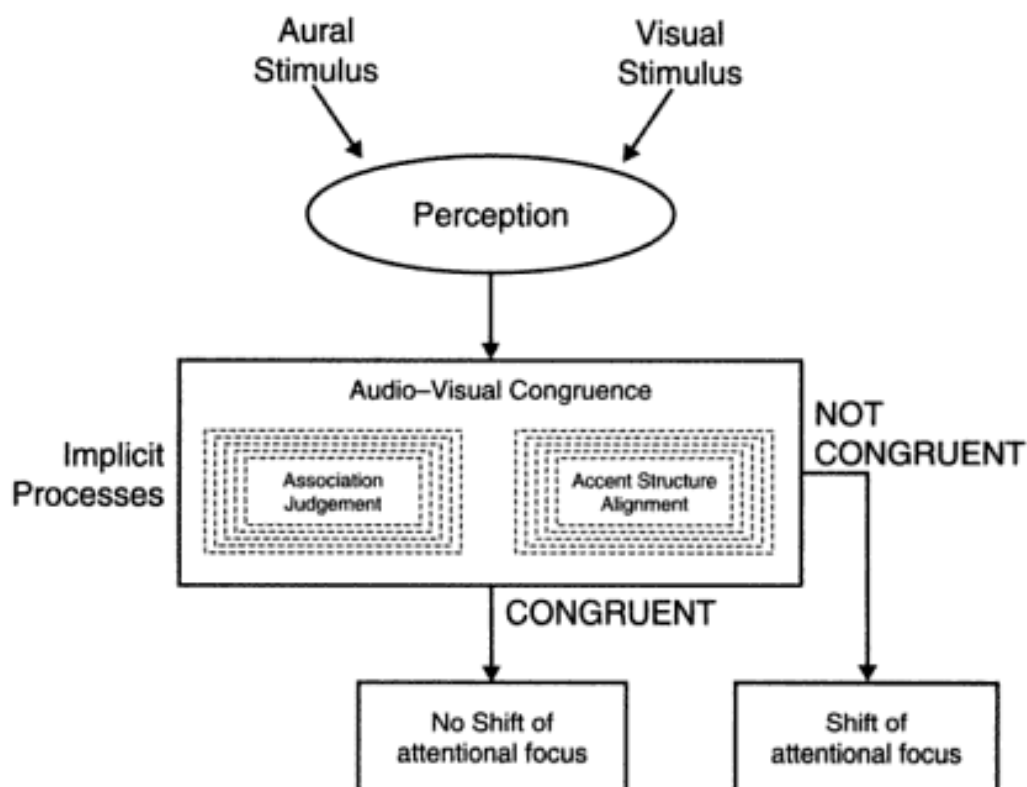


Fig. 2 A revised version of Lipscomb and Kendall's (1994) film music paradigm.

Defining the precise factors that influence and qualify how we determine what is congruent is another matter entirely. Complex sociological conditionings and personal preferences differ between people, so that a determined agreement of musical congruency amongst everyone is not possible. In particular, the existence of intervallic dissonance and atonality in music tend to strongly divide listeners, with some having a higher preference and/or tolerance to it than others.¹⁰

The film (independent from its soundtrack) has its own form of congruence subjectivity that may be entirely different to the one the soundtrack generates. And, when the music and film are perceived as a whole and not as independent elements, the judging of congruency can be an even more complex process. Because of this, improvising musicians must attempt to 'interpret' the film *through* the overall soundtrack, while at the same time responding to nuances communicated by their fellow players. Additionally, if the improviser chooses not to respond (to either the film or the other musicians) then a non-congruent response can develop in the ensemble, sometimes even exacerbated by other musicians doing the same thing! These factors make interpretation in improvisation to screen especially difficult.

It is important, however, to realise that non-congruence does not always create a particularly negative or positive effect; it merely acts as a catalyst for perceptual change that affects the interpretation of the score. Experimentation in congruency may encourage further, more complex understandings in how film scores are made.

Improvisation as a co-composition, and implications on dramatic cohesiveness

There exists considerable research into the dynamics and theory of musical communication within improvisation, but presented uniquely here is the addition of a film as a 'partner' within the improvisation. However, a film does not respond or communicate in the same way as a real-life human improviser would. A film will primarily move forward with 'total disregard' to any part of the success or failure in the music accompanying it, thereby making it quite an inattentive improvisation collaborator.

Typically, improvisers will listen to each other during a performance and communicate through reactive phrases, during which they will also watch and interpret what is happening on the screen. However, the effective 'leader' of the improvisation may be the film itself. Whatever develops in an improvisation, whether it is thematic music or something else, it must ultimately answer to the overall dramatic implications created when it is experienced together with the film.

The notion of dominance is significant, as it brings up several issues important to improvisation. Firstly, depending on how dominant the structure of the film becomes, improvisers will use that as guidance to interpret their musical responses. If the film is overly dominant and at the same time structurally vague, then the improviser may not know what to follow. Furthermore, if the improviser must relinquish part control over their contribution (and thus also their creativity), the potential for that improvisation to develop naturally diminishes.

This is not a completely foreign position in which film music musicians have traditionally found themselves. Filmmakers (i.e. the director or producer, etc.) often *prefer that the music in a film not take any sort of dominant role. Conversely, an improvisation (or any film score for that matter) may not completely 'thrive' if it is artificially restricted by the film. Compromise may exist, however, in that an improvisation weighs its own strengths and weaknesses in relationship with the film. Musicians can rely on a film to provide structure as long as the music is allowed to develop more 'abstract' dimensions that allow depth in the improvisation to emerge.

With historical silent films, this type of compromise relies on feedback that really does not exist.¹¹ In such circumstances, the improviser is left alone with their own assumptions as to how to interpret the film musically. This feedback is sometimes provided by the response of a live audience as applause, laughter, etc.¹²

The influence of electronics when improvising to screen

In Blair Davis's article, *Old Films, New Sounds: Screening Silent Cinema with Electronic Music* (2008), it is suggested that using electronic music to accompany silent films may play a significant role in making silent films more attractive to younger audiences (in this study, under the age of 24). Respondents to this research survey stated that, 'using electronic music served to make silent films feel 'more modern' or 'contemporary'. At the same time, many noted that electronic music also allowed silent films they watched to feel more 'artistic' or 'avant-garde', stating that the films seemed as if they could have been created fairly recently...' (2008: 4).¹³ Evidently, using modern electronic scores may even help support the cultural longevity of silent films by making them more attractive to newer audiences.

Electronic music also plays an increasingly substantial role in supporting current 'traditional' forms of silent film performance by supplementing thematic realism through new and modified piano, organ and instrumental ensemble timbres created in digital audio workstations (sequencers), samplers and audio effects. Silent film festivals, including those in Italy, Germany and the UK, now commission modern electronic scores for their screenings. The Le Giornate Del Cinema Muto in Perdonene, Italy has followed this trend by featuring contemporary scores from Wim Mertens and John Cale (Davis 2008). Film scores utilising electronic instruments have been composed to classic silent films such as *The Battleship Potemkin*, *Nosferatu* and *The Cabinet of Dr. Caligari* by the likes of The Pet Shop Boys (2005) and Massive Attack (2010). Silent film accompanists, such as Donald Sosin (USA) perform to silent film utilising a MIDI keyboard and sampled virtual instruments run through a laptop and a Digital Audio Workstation software.

Relative control, consistency, convenience and especially affordability of the current crop of electronic instruments and software have led to increased usage by musicians. Additionally, recent downward trends in music literacy and knowledge of conventional notation skills have meant that, in order to expand the potential market,

music technology is often designed for use by musicians without traditional musical knowledge.

However, for film music accompanists like Donald Sosin that utilise conventional instruments (keyboard, organ, piano, etc.) in their live performances, adding electronic instruments to their set-ups can create their own set of problems:

- Electronic set-ups require individual construction and configuration to fit in particular musical situations. Music technology, whether software or hardware, often needs to be configured especially before a performance. Many electronics, despite being designed for performance, must still be programmed before use. Improvisation with electronics may therefore be more complex to start than with conventional instruments, but not always.
- Electronic instruments need to be designed and programmed to be reliable during a performance and to not crash. If that happens, it is often difficult for the improvisation to recover unless complex contingencies are thought out beforehand. A conventional instrument, such as a trumpet or piano, rarely deteriorates during a performance to the point of unplayability.
- Faced with a wider palette of sounds and instruments available with many electronic instruments, the improviser must carefully consider the consequences of mixing different and unexpected timbres together with familiar ones. Especially with samplers and/or synthesisers it is easy to create experimental, even disturbing, sonic textures that add complexity to our perception to the soundtrack.¹⁶

Reactivity

As outlined earlier, an important goal in the creation of film music is to attempt to support the general perceived narrative of the film with an appropriate musical one. The performer of a fixed film composition may play only what is dictated by the score (related to a cue), whereas in an improvisation the performer must simply *react* to what is on the screen. An improviser will respond immediately to any impetus. Indeed, the improviser may overwhelmingly focus only on ‘the little things’ rather than the entire film narrative, because that may not be fully apparent. And, without any strongly predetermined compositional construct to rely upon¹⁷, an improviser often

creates musical ideas that they may not be able to develop without becoming non-congruent in the emerging overall narrative. In other words, the developing musical narrative when improvising may not be a 'straight path' forward. This can lead to the necessity for the improviser to occasionally make quick changes in style, timbre and expression.

The ability for an instrument to respond flexibly and quickly to the performers intent can be considered as *reactivity*. A conventional instrument, such as a clarinet or an organ, would be typically considered to have high reactivity when performing, because the intended sound is produced and performed instantly. A complex electronic set-up, however, may have low reactivity if a performer is unable to quickly create sounds and timbres they want during improvisation. The technical complexity of creating and/or programming those specific sounds may limit the improviser's ability to respond immediately to film cues.

If a conventional instrument has high reactivity due to its design, then to achieve the same effect an electronic set-up should also be designed to have quick, ergonomic access to a wide palette of sounds and expression during performance. A MIDI based system will therefore usually use a control surface (for example Ableton Push Pad, NI Maschine Studio, Touch OSC, etc.) to access complex sounds produced by software for the performance. Even with such control surfaces, however, developing reactivity in a set-up remains a difficult and often individual process, as we will see within the results in the following section.

Results and analysis of experiments

From 2011 to the present, I have been involved in several improvising-to-screen projects performed in front of a live audience or recorded in studios. While the analysis in this essay will be primarily focussed on the electroacoustic sessions after 13 March 2015, it is important to describe briefly how these processes for improvising to screen developed up until then.

In order to contextualise what is meant by the process of screen improvisation to the performing musicians three main characteristics were defined. Firstly, the performances primarily involve playing straight to the screen with little or no editing of the (recorded) sound and with various instruments either in an ensemble or alone. Also, there must be few or no notated and/or graphic musical score elements used – a general but non-specific characteristic of improvisation. Finally, the performance is

free to 'change' as it goes along, and musicians in the ensemble are allowed to communicate (musically) in order to make those changes happen.

It is common for the ensemble to have a discussion about improvisational method or approach before they begin to play. During my earlier research in 2011, I defined five methods that players could use to specify what those methods are in order to better understand their effectiveness. In this current project, each improvisation took place utilising one (or more) of these methods of improvising music to film.¹⁸ The methods were developed specifically to consider the effects of reactivity, dramatic control and spontaneity when improvising to screen through pre-determined processes. They were the following:

Method 1: Look first at the film in its entirety, with or without sound (preferable, as it doesn't then imply simple musical mimicking) then improvise and talk about the outcome.

Method 2: Look first at the film in its entirety, with or without sound, create and study preparatory material together, such as a simple cue sheet or graphic score. Then talk about how it will be played and establish limitations ahead of the first attempt. Then play and talk about the outcome.

Method 3: Go ahead and play from the beginning with the film, without any cue sheet or background, then talk about the outcome.

Method 4: Don't rehearse at all and play at first sight in the performance.

Method 5: The most extreme way - don't look at the film at all before, during or after the performance and simply improvise.

These methods were intended to provide support for the improvisation process by categorising certain forms of preparatory limitations, or restriction to the improvisatory approach, while providing enough scope for creative experimentation.¹⁹ They came about through discussions with improvisers and collaborators from the improvisation-to-screen projects in 2011 and 2013, including those involved in the first set of improvisation films provided by the SSA.²⁰ Each method sets a limit on the amount of preparation improvisers have before each performance and suggests how much interaction they should have with a film while playing. These limitations can be compared with the aleatoric process, one that is essentially not about allowing complete freedom, but of establishing creative

restrictions that encourage the improviser to consider their approach, sound and inter-musical communication.²¹ Additionally, these methods consider traditional approaches common to the composition of film music and apply them to improvisation by suggesting the use of cue sheets or graphic scores, discussion of music in key scenes beforehand, limitation in viewing the film, etc.

The results of the improvisation to screen sessions in 2011 produced interesting results and allowed me to gather useful data on each method. Particularly, the sessions also showed what effect the films themselves (as co-improviser) had on the improvisations. In most session, the films often indeed became dominant to the improvisers. The films provided only rigid and unmoveable impetus, and therefore offered virtually no feedback for the improvisers to work with. Some improvisers even occasionally described the film as a ‘distraction’ to the improvisation, particularly effecting the communication between musicians.

In December 2014, I began to collaborate with composer and trumpeter Christian Svalesen to investigate performance methods of live improvisation with electronics and trumpet(s). During our first sessions it became very clear that live electronics, especially the use of samples and effects in real-time, allow for the creation of an extremely dynamic sonic palette. This palette was variable enough to expect that it could work well with film, not just as a background atmosphere, but potentially also as part of a fully reactive and dynamic leading film score.

Fig. 3 lists the audio-only sessions that were recorded from 13 March 2015 to 6 April 2015 and the first attempts with film from 13 April 2015.²² The unrecorded sessions between December 2014 and 13 March 2015 primarily involved experimenting with different combinations of electronic set-ups, performance strategies and sounds before we were comfortable enough to attempt working with a film. We were trying to develop a reactive and diverse performance system that could produce many different timbres for both players to respond to and that would be reliable during a performance.

The sessions up to 13 March 2015 served to help create our own concept of spontaneous composition techniques and practice control methods that we would need when we eventually improvised to screen. Between the two players, we used a laptop running Ableton Live, a Korg Kaoss pad, a Korg MS-20 with SQ-1 sequencer, and an Elektron Machinedrum UW+ along with two trumpets playing through effects being patched back into Ableton Live for sampling (Fig. 4). Our electronics set-ups were

LS - accepted all revisions from Yati 12.04.16; LS edit 01.05.16; sd 3.05.16
YD edit 21.05.16

fairly uncomplicated, though they were complex enough for us to be, at times, technically overwhelmed. In later sessions, we experimented with adding different effects (via TC Electronic Fireworx and others), adding additional synths (a Yamaha AN1X) and patching audio signals in other ways.



Fig. 4 This was our setup for two players from 13.05.15 without guitar and effects.

However, it soon became quite clear that more was not necessarily better. We noticed that by adding the additional effects and synths to our set-ups, we had also promoted the necessity to use them too much. The resulting music was at times overly chaotic and unresponsive. The sonic palette in electronic music can become saturated and lead to overuse of sonic complexity in a performance, and this was happening here. The external effects provided by the TC Fireworx, while excellent and variable, proved too linear and difficult to manage (especially the feedback and distortion algorithms). We therefore chose to limit our effects to those produced

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YD edit 21.05.16

through the Kaoss pad or the MS-20 and/or iPad Samplr app. The MIDI sounds of the AN1X proved to be too complex in the mix, so we stopped using them and instead relied more on the MS-20 and the Machinedrum sampler.

From 13 March 2015 we began to record our performances with these more refined set-ups and then discuss the results afterward. These discussions helped us decide what was working and what needed to be changed. Written notes were also made from each session so that we could keep track of our agreed changes.²³ We felt we were developing a sound that could be used expressively with film and exploring new tools and processes. By documenting our processes we felt we were also able to learn from our ‘mistakes’.

By 13 April 15 we believed we were ready to attempt our first spontaneous composition to a film. The film we chose was the feature-length silent film, *Häxan: Witchcraft of the Ages* (1922), written and directed by Benjamin Christensen. This film features lengthy fictionalised documentary-style images with dramatic scenography and many descriptive characters to potentially support with music. Portrayed and recreated in mostly historical religiously conservative symbolisms, *Häxan: Witchcraft of the Ages* presents the evolution of witchcraft, from its pagan roots to the confusion and hysteria in modern Europe. Each scene is presented modularly and chronologically, with morally descriptive narrative placed in the inserts. The film is also laced with intense horror-like tinges and psychological content. Importantly, the film moves at a moderately edited pace and with a fairly consistent style – which was ideal for us as we developed our new techniques for performance. During the sessions from 13 April–4 May 2015, we improvised to approximately 40 minutes from the start of the film at a time.

I made the suggestion during our first attempt that we consciously acknowledge that the film would provide a distraction which may inhibit our normal musical communication and that we should not strictly follow the drama. We chose to begin with a hybrid approach between Methods 4 and 5, in which we improvise without any previous specific preparation of materials to support the film (i.e. cue sheets, graphic scores, etc.). Importantly, we would then be obliged to watch the film continuously throughout the performance in order to interpret the action. This allowed certain forms of reactivity to develop in the sound, such as crescendi occurring within filter sweeps and the manipulation of trumpet tones (for example around 9:20 and 24:00). These occurred without having to attempt complex ‘escape’ strategies or

require quick re-patching or re-configuration of the instruments if the scene changed suddenly. In other moments, repetitive patterns or ‘grooves’ started to develop that could potentially have worked against the scene, but were allowed to continue (between approximately 19:00 – 27:00). During the first few improvisations to film we frequently continued to play even after the film had already ended (31 March and 27 April sessions).

Such moments of musical non-congruence may not have had only negative effects when they didn’t (apparently) support or mimic the film. They were intended to support the continuity of the film and make it more enjoyable by responding in a musical way that the viewer may not *directly perceive* as incongruent. In other words, if the music was working well then it’s response to the film may have been less important than to allow it’s overall musical continuity to continue. To the improvisers, such contrasts felt appropriate during the performance. It appeared as though this silent film has a sort of sonic ‘blank slate’ that allows a great deal of experimental freedom in musical complexity to co-exist with it.

At the proceeding sessions on 27 April 15 and 4 May 2015, the improvisation methods changed. Since we were continuing to work with the same film, *Häxan*, the spontaneity of Methods 4 and 5 was essentially no longer possible - we had seen the film (at least partially) during the 13 April 2015 session.²⁴ We therefore moved forward with improvising on 27 April 2015 with Method 1, which calls for an initial viewing and discussion before performing to the film. For the session on 4 May 2015 we used Method 2, which allows for the study and preparation of performance material, such as a graphic score or cue sheet.

Certain sections such as a pivotal scene around 26:45 (where the Devil calls on the young bride) were much better prepared during the session on 27 April 2015. Throughout this session we both felt we could respond to forthcoming cues better and with more conscious effort. Overall reactivity was much quicker in generating appropriate timbres. We created more effective rhythmic and sonic textures to support the drama. However, trumpets (and voice) were still overall more responsive than electronics, especially in portions of the film that had the most sudden cues (for example through the sequences from 25:40 to approx. 29:00).

We created a graphic score that outlined where major cues and scenes are placed in a timeline for the session on 4 May 2015. This structural aid had a significant effect on the improvisation by giving us increased overall awareness of

events in the film that enabled us to programme our electronics for use in exact cues. The samples in iPad's Samplr app were set to play intended timbres at specific moments.²⁵ Many passages had considerably more clarity of sonic structure (for example, the 'Devil's Factory' segment around 7:45 or the representative filter-sweeps around 12:00). There was also a bit more confidence using non-congruent fragments of sound (examples around 7:00), which may have helped to dissipate monotonous regularity in the film. Additionally, short works of repetitive music or 'songlets' could be more effectively explored during and before leading to cues outlined in the graphic score.

For the last session on 13 May 2015 we chose a completely new and contrasting film: *McLaren: Animated Musician* (Experimental footage). This footage was made up of a collection of unreleased experimental tests undertaken by animator/composer Norman McLaren (1914-1987) featuring an assembly of random various visual/musical cues, ranging from monochromic flashing patterns to paper collage-like scenes, each with its own embedded visual/audio patterns. Norman McLaren produced much of his experimental film/music work during his time working for the National Film Board of Canada, developing and producing films that allow the direct transliteration of audio playback from etching directly, or placing animated images, on the projector's optical reader.

For this session, we invited Jack Weir to join us on his guitar with effects pedals. This was our first attempt at using these methods with an additional musician and it involved a short conversation beforehand with the new member in order to familiarise them with what we were currently doing.²⁶ The improvisation process for *McLaren* involved Method 2, which dictated a more conventional improvisation to screen structure. The film was watched during the performance, but there was no preparation of materials, pre-viewing or discussing of the film beforehand.

Jack Weir and I had performed previously on several improvisation performances, although never together with a film. Making the process more complex, the film itself has its own abstract soundtrack for which we were not at first prepared. However, this added a distinct and unique communicative factor to the improvisation.²⁷ As the film is made of experimental test footage and contains no connected narrative, it appeared almost completely visually random.

The session can be seen as successful and unsuccessful at the same time. Because of the lack of narrative, we became aware that it was unclear how to

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YD edit 21.05.16

accompany certain sections with music (i.e. around 18 and 22 minutes). The images - short sequences of animated bars of light or moving collages - provided very few 'normal' clues as to what kind of music would fit. The soundtrack, made up mostly of clicks and bleeps that corresponded directly to animated images etched on the film, was difficult to improvise with as it created a sort of 'audio counterpoint' to the rest of the improvisation. This created a complication within the musical communication because it was not reactive in any way to any other improviser's intent. Hence, the film's soundtrack seemed to remain dominant through most of the performance.

However, at around 24 minutes some textural samples – mostly manipulated trumpet sounds – began to extensively develop out of the Ableton Live patch. These sounds carried on to inspire a musical texture that developed into a 'songlet' by around 28:00. It is likely that this could have come from a familiarity with the material by this point of the improvisation, as well as out of a response to the relentless existing soundtrack. This was eventually prominent enough to slowly 'detach' the improvisation from the film (and soundtrack) and continue through to the end of the film. The improvisation continued through beyond the end of the film on to several minutes of black frames. This was perhaps due to its own musical strength and separation from the film, lending itself to becoming musically independent rather than 'subservient' by stopping at end of the film.

Conclusion

Firstly, it may not be fully possible to determine an improvisation's effectiveness to a film with definitive results. There are seldom any 'nailed-it' moments and most of the time perceptions of its effectiveness are highly subjective. This subjectivity remains in much of the arts in general, even when cultural trends and new methods influence future creative practice. This may be precisely what makes it so necessary to experiment with new scoring techniques: *these are creative practices that encourage new ways of approaching film music aesthetic understanding.*

Improvisation, for film or otherwise, requires the ability to understand the intense abstraction of music as a way to communicate. By considering congruency in the process, some of the most abstract sounds may gain new meaning in a film score. During these sessions it seems that even where the first attempts were relatively vague in translating the dramatic narrative, they relied heavily on what meanings were created through abstraction, or that they were allowed to become non-congruent.

Current music technology trends have created an exciting time to work in the field of music for screen. Advancements in precise audio/video synchronisation, multi-tracking, virtual instrumentation and audio pitch correction have left no scoring problems without potential. Crucially, much of this new technology is now inexpensive. Live electronic music is experiencing a particular boon, partly due to new hardware/software offerings in the 'prosumer' realm and because of a prodigious collective (YouTube) culture that puts most solutions only a click away.

However, the implication of these processes, in particular those that remain compositional in nature and how they respond to the screen, contain many complexities as discussed here. The methods presented provide an outlet to explore solutions through experimentation in improvisation, even if the traditional model of 'the composer working at their desk' still often provides for more structural accuracy in a work. Improvising with cue sheets or graphic scores and/or prior rehearsal (i.e. methods 1 and 2) may appear to get closer to that model, but at the cost of losing some musical communication.²⁸ Therefore, it is certainly still of great use to improvise to screen without any preparatory material as it can lead to greater spontaneity. Ultimately, spontaneity is the most vital and unique aspect of improvisation and I believe it should be cultivated whenever possible.

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Yati Durant is a U.S. born composer, film composer, lecturer, trumpeter and conductor currently based in the UK. He has studied with Krzysztof Meyer and Hans Ulrich Humpert at the Conservatory of Music in Cologne, as well as with George Crumb, Philip Lasser, Narcis Bonet, Lee Konitz and conducting with Jonathan Brett. His compositions and film scores have received many prizes from International festivals, and have been performed throughout Europe and the USA. Since 2010, Yati is Lecturer of Music, Sound and Moving Image at the Reid School of Music, University of Edinburgh.

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¹ I believe that film music is not a singular practice, but actually part of several distinct creative skill sets. This is because the creation and placement of music within a film requires different forms of musical understanding, an awareness of film narrative as well as (often) specialised technological skills, among other requirements. Indeed, film music composers will often tend to feel more like a part of the filmmaking team than that of just a composer, with the director or other members of the film team participating in the music selection process.

⁴ In some kinds of improvised music there are forms, structures and melodic/harmonic phrases that may occasionally be classified as not exactly being improvised. Such an example would be of traditional mainstream jazz in which players practice for years to imitate styles and 'licks' of players from the past. The imitation can be so complete as to practically replicate another player's improvisational traits and musical application, rather than to innovate from 'nothing'. Pure improvisation, at least in theory, should require a complete innovation of musical performance at every moment – something that may not actually be possible – as we often replicate music we have heard previously, even subconsciously.

⁵ Musical style is a very subjective characteristic, particularly in improvisation where musical conditioning almost always plays a key role.

⁶ In this statement, it would also imply that there is some factor that has created the 'decay' of spoken language as it pertains to film. In *Cinema, Emergence, and the Films of Satyajit Ray* (2010), Keya Ganguly ascribes Kraus's statement to have influenced Adorno and Eisler. Ganguly writes that in 'Eisler's view music is seen to... relieve his or her fear of the speaking effigy designated by the character and the attendant anxiety about being threatened by his or her own muteness.' (2010: 135) This refers to a character's inability to express something through words, and that music can perhaps do so more effectively.

⁷ By reactivity, I am suggesting that musical events occur at moments (or cues) in a film in order to emphasize meaning. This is explained in more detail later in this article.

⁸ One example of such research is of the psychological response described as *Synesthesia* when listening to music with visuals. The composer Alexander Scriabin (1872-1915) was a great proponent of this.

⁹ Reproduced from Lipscomb, S.D. and D. E. Tolchinsky (2005).

¹⁰ In this article, I am defining dissonance as not only sound that resonates in atonal or extended harmonic intervals. For the purpose of utilisation in the context of improvisation to screen, dissonance can also be perceived as traditionally consonant intervals played rhythmically out of sequence with others or in an 'unexpected' way.

¹¹ The filmmakers and creative team may no longer be alive!

¹² For example, the improvisation to the silent film *The Enchanted Glade* (6 December 2011) involved a conscious (and discussed) decision not to watch the film during the rehearsal and performance. The ensemble knew – not precisely – when the film was being shown (light reflected from the screen could be sensed peripherally and suggested that the film was running) but not what content or dramatic structure it held. The resulting improvisation was actually quite satisfying for the performers as the musical communication was much better without the screen compared with other improvisations where the performers had to pay close attention to the film. However, there was a moment during the performance when the audience responded with laughter from a comic moment in the film. This was something that the improvisers did not expect, but it created an interesting moment of palpable non-congruency that several of the improvisers responded to musically.

¹³ Page number is from the ProQuest online article edition.

¹⁶ For example, in Blair's article, some focus group participants found the use of electronic music 'distracting.' In one example, several students who disliked the use of DJ Spooky's music to accompany *The Cabinet of Dr. Caligari*, said they felt 'distracted' by the modern drum loops and electronic sounds, claiming that they didn't 'suit' the film.

¹⁷ This may not only be a film score composition, it could also be a cue sheet or graphic score that helps the improviser organize the narrative and create a musical performance 'plan'.

¹⁸ The five methods presented here stem from a paper I gave at the Institute for Music and Social Development (IMHSD) interdisciplinary summer workshop, Hearing, Seeing and Imagining: Music and the Visual Arts, Herstmonceux Castle, East Sussex, UK entitled *Dramatic Comprehensibility in Improvised Music to Film* in 2012. In the paper, examples were given from improvisations to films provided in collaboration with the Scottish Screen Archive in 2011, utilising primarily acoustic (non-electronic) instruments. While the approaches to these improvisations were the same as those given in this essay, the results varied somewhat to those presented here due to the nature and implementation of electronic instruments in the improvisations. Indeed, this is the reason why there is a modular structure to this essay: the processes are somewhat universal to different approaches, but change through musical communication, technology considerations, reactivity, etc. At their core, these approaches are a simple and clear means to begin an *improvisational dialogue* that inevitably occurs before each collaboration.

¹⁹ Please see the paper on Academia.edu for more on this:

<https://edinburgh.academia.edu/YatiDurant>

²⁰ Please see footnote 10. The Scottish Screen Archive provided 5 films to improvise to at an event at Inspace, School of Informatics, University of Edinburgh on 6

December 2011. The improvisation ensemble was made up of Yati Durant on trumpet, Martin Parker on horn, Jillian Mathews on harp and Armin Sturm on contrabass.

²¹ Improvisation, especially the notion of ‘true’ or ‘free’ improvisation, does not necessarily imply that anything can or should be played at any time. Improviser and composer Anthony Braxton, interviewed in the book *Forces in Motion* by Graham Lock, said, ‘One of the problems with collective improvisation,... is that people who use anarchy or collective improvisation will interpret that to mean ‘Now I can kill you; and I’m saying, wait a minute! OK, it’s true that in a free-thought zone, you can think of anything you want to think, but that was not the optimum state of what I had in mind when I said, let’s have freedom.’ (Lock 1988) He was implying that free improvisation must still have rules of some sort, whether they be agreed upon or ‘tolerated’. This is what the concept of *aleatoric composition*, i.e. Kagel, Lutoslawski, etc. largely entails.

²² The complete datasets are available on the DATASHARE repository of University of Edinburgh: <http://datashare.is.ed.ac.uk/handle/10283/794>

²³ Fig. 3 reflects a condensed version of the written notes.

²⁴ Methods 4 and 5 imply that the improviser not know the content or structure of the film beforehand.

²⁵ Even though this app could sample in real-time, it was more flexible to pre-load in advance.

²⁶ We focused primarily on the interaction between two performers of electronic and acoustic instruments up to this point in the project. The SSA improvisation to film projects from 2011 and 2013 included no electronics and involved small ensembles of acoustic instruments only.

²⁷ Norman McLaren (1914-1987), an experimental Scottish-born animator/composer, is well known for his ‘performing’ of hand-etched portions of the film’s soundtrack to develop compositions that can be seen as well as heard. His experiments represent important developments in recognizing the relationship between (animated) image and sound. The McLaren film used in this project was part of a project together with the University of Edinburgh, CMI and the National Film Board of Canada to commemorate McLaren’s 100th birth centenary.

²⁸ This was especially apparent during the 4 May 2015 session.